

In the Claims:

Please add the following new claims:

1. (Original) A polyurethane formulation suitable for preparing a polyurethane foam, said formulation comprising:
 - a) at least one isocyanate-reactive material having an average equivalent weight of about 1,000 to about 5,000;
 - b) from about 0.5 to about 3 parts water per hundred parts of said at least one isocyanate-reactive material;
 - c) from about 0.01 to about 3.5 parts urethane catalyst per hundred parts of said at least one isocyanate-reactive material;
 - d) from about 1 to about 2 parts surfactant per hundred parts of said at least one isocyanate-reactive material; and
 - e) an isocyanate-based prepolymer prepared by reaction of an isocyanate with a polyol having a molecular weight of up to about 800.
2. (New) The polyurethane formulation of Claim 1, wherein the amount of urethane catalyst is from about 0.01 to about 3.0 parts per hundred parts of at least one isocyanate-reactive material.
3. (New) The polyurethane formulation of Claim 2, wherein the amount of urethane catalyst is from about 0.02 to about 2.5 parts per hundred parts of at least one isocyanate-reactive material.

4. (New) The polyurethane formulation of Claim 3, wherein the amount of urethane catalyst is from about 0.02 to about 2 parts per hundred parts of at least one isocyanate-reactive material.

5. (New) The polyurethane formulation of Claim 4, wherein the amount of urethane catalyst is from about 0.02 to about 1.8 parts per hundred parts of at least one isocyanate-reactive material.

6. (New) The polyurethane formulation of Claim 5, wherein the amount of urethane catalyst is from about 0.02 to about 1.6 parts per hundred parts of at least one isocyanate-reactive material.

7. (New) The polyurethane formulation of Claim 6, wherein the amount of urethane catalyst is from about 0.02 to about 1.4 parts per hundred parts of at least one isocyanate-reactive material.

8. (New) The polyurethane formulation of Claim 7, wherein the amount of urethane catalyst is from about 0.02 to about 1.2 parts per hundred parts of at least one isocyanate-reactive material.

9. (New) The polyurethane formulation of Claim 8, wherein the amount of urethane catalyst is from about 0.02 to about 1 part per hundred parts of at least one isocyanate-reactive material.

10. (New) The polyurethane formulation of Claim 9, wherein the amount of urethane catalyst is from about 0.02 to about 0.5 parts per hundred parts of at least one isocyanate-reactive material.

11. (New) The polyurethane formulation of Claim 10, wherein the amount of urethane catalyst is from about 0.02 to about 0.05 part per hundred parts of at least one isocyanate-reactive material.

12. (New) The polyurethane formulation of Claim 11, wherein the amount of urethane catalyst is from about 0.02 to about 0.03 part per hundred parts of at least one isocyanate-reactive material.

13. (New) The polyurethane formulation of Claim 1, wherein the isocyanate-based prepolymer is an MDI prepolymer.

14. (New) The polyurethane formulation of Claim 1, wherein the isocyanate-based prepolymer is prepared by reaction of an isocyanate with at least one of dipropylene glycol and tripropylene glycol.

15. (New) The polyurethane formulation of Claim 1, further comprising a filler.

16. (New) The polyurethane formulation of Claim 15, wherein the filler is an aluminum oxide trihydrate, calcium carbonate, barium sulfate or a mixture thereof.

Claims in the Application. Claims 2-16 have been added to this application. Claims 1-16 are active in this application.

Examiner's Rejection of the Claims Over Jenkins. The Examiner has rejected Claim 1 under 35 U.S.C § 103 over U.S. Patent No. 4,296,159 ("*Jenkins*"). This ground for rejection is traversed.

The Examiner erroneously concludes that *Jenkins* disclose a "polyurethane composition for foaming" comprising an isocyanate-reactive material, water, catalyst, surfactant and an isocyanate based prepolymer. The Examiner bases his conclusion that the polyurethane composition contains water from lines 56 of column 3 through line 21 of column 4. Applicant respectfully disagrees with the Examiner's conclusion.

The reference to "water" in line 56 of column 3 exemplifies the "hydroxyl containing compound" which forms, with the hydrocarbylene oxide, the polyether polyol adduct. In Applicant's claims, water is a component of the polyurethane formation per se. An understanding of the teaching to "water" in *Jenkins* requires review of the preceding paragraph.

Note lines 46-53 of column 3:

Suitable relatively high molecular weight polyether polyols which can be employed in the present invention include *adducts of one or more compounds containing 2 to 8 hydroxyl groups per molecule and one or more hydrocarbylene or halogen substituted hydrocarbylene oxides.*

Suitable hydroxyl containing compounds include those having from about 2 to about 20, preferably from about 2 to about 6 carbon atoms such as, for example, water, ethylene glycol (Emphasis added.)

Likewise, note the discussion in lines 14-23 of column 4 of *Jenkins* directed to the use of low molecular weight polyols of adducts of initiators (such as water) and a hydrocarbylene oxide.

In contrast to the initiators of *Jenkins*, water in the claims of Applicants is a chemical

reactant used to manufacture the polyurethane foam. Note the discussion in the bridging paragraph of pages 3 and 4 of Applicants' originally filed specification:

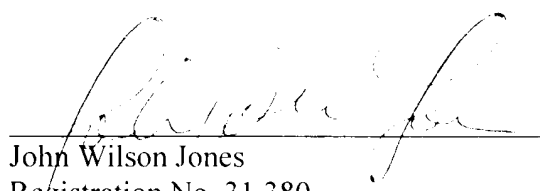
The polyurethane foams of the present invention are similar to conventionally prepared foams except that they are prepared from formulations having high levels of catalyst, surfactant *and water*. *The high level of water causes a chemical blowing of the foam when the water reacts with a polyisocyanate component of a polyurethane formulation of the present invention.* The combination of the mechanical blowing, also called frothing, and chemical blowing from the reaction of a polyisocyanate and water *results in polyurethane foam having lower densities* than those conventionally used for carpet backings an carpet underlays. The polyurethane foams so produced have sufficiently low densities to be less expensive to produce than conventional polyurethane foams for carpet applications, yet the foams have sufficient resiliency and dimensional stability to be desirable for use in carpet applications. (Emphasis added)

Note that the froth in *Jenkins* is made from an inert gas, not water. Note lines 44-62 of column 5 of *Jenkins*. Further, water is not used as a chain extender in *Jenkins*. *Jenkins* states the chain extender (B) in lines 3-7 of column 3 as having "an average equivalent weight of from about 31 to about 230". The equivalent weight of water is 9, not 31.

Thus, water is not used in *Jenkins* as a reactant but rather as the initiator for making the high molecular weight polyol. Since *Jenkins* does not disclose the use of water as a reactant in the manufacture of polyurethane foam, the rejection of the claims over *Jenkins* is traversed.

Respectfully submitted,

Date: 5/18/2003


John Wilson Jones
Registration No. 31,380

LOCKE LIDDELL & SAPP LLP
3400 JP Morgan Chase Tower
600 Travis
Houston, Texas 77002-3095
Telephone: (713) 226-1142
Fax: (713) 229-2570

CERTIFICATE OF TRANSMISSION, 37 C.F.R. § 1.8

RECEIVED
AUG 7 2003
TC 170

I hereby certify that this correspondence is being transmitted to the United States Patent and Trademark Office on this the 18th day of August, 2003.



Jana Walraven
Jana Walraven